Scott M. Matheson Governor

James O. Mason, M.D., Dr.P.H. **Executive Director** 801-533-6111

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File Kennecott Bingham Mine TH Copy to Wayne DEPARTMENT OF HEALTH GOY

DIVISION OF ENVIRONMENTAL HEALTH ACT /035

150 West-North Temple, P.O. Box 2500, Salt Lake City, Utah 84110

533-6146 September 30, 1981

Alvin E. Rickers, Director Room 426 801-533-6121

JIM

Dr. Robert J. Heaney, Ph. D. Environmental Affairs Kennecott Minerals Company P.O. Box 11248 Salt Lake City, UT 84147

OIL, GAS & MINING

RE: Bingham Tunnel Discharge

Dear Dr. Heaney:

Enclosed are reports of analyses of State samples 805481, 805482, and 813322-813324 for the Kennecott Bingham Tunnel discharge and the Herriman Irrigation ditch above and below the discharge. The June 16, 1981 discharge sample results indicate the following concentrations of concern:

> Total Suspended Solids 72 mg/l2117 mg/l Total Dissolved Solids Iron 25 mg/lZinc 10 mg/lArsenic $.16 \, \text{mg/l}$

The irrigation ditch is a water of the State and has, therefore been assigned a Class 4 beneficial use classification. There may be further concern during other periods of the year if the water is not entirely diverted for irrigation purposes and enters permanent streams. Since these receiving waters are waters of the State, the State standard of 25 mg/l total suspended solids (TSS) for wastewater discharges applies.

It is the responsibility of dischargers to provide the necessary treatment to insure compliance with the aforementioned water quality standards. It appears that the discharge may violate total dissolved solids (TDS) and arsenic standards. The TDS concentration in the discharge causes the irrigation ditch to increase from 600 mg/l to 1350 - 2092 mg/l, whereas 1200 mg/l is the agricultural use standard. The 0.14 mg/l arsenic concentration exceeds the O.l mg/l standard for irrigation water. In addition, the high iron and zinc values may also be detrimental to some irrigation uses and should be evaluated.

Mr. Robert J. Heaney Page Two September 30, 1981

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In view of the above, we request that Kennecott submit by November 2, 1981 an implementation plan to study and achieve State effluent and water quality standards. Meanwhile, if you have any questions, please contact Steve McNeal at 533-6146.

Sincerely,

UTAH WATER POLLUTION CONTROL COMMITTEE

Calvin K. Sudweeks Executive Secretary

SRM:drb

Enclosures

cc: Herriman Irrigation Company

BLM, Salt Lake City

EPA - Denver, Enforcement Salt Lake County Water Quality

Salt Lake City County Health Department

Division of Oil, Gas and Mining